SEW EURODRIVE

Contactless Energy Transfer
MOVITRANS® Pick-Ups
THM10C / THM10E

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Operating Instructions

SEW EURODRIVE

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1 General Information

1.1 How to use the operating instructions

The operating instructions are an integral part of the product and contain important information on operation and service. The operating instructions are written for all employees who assemble, install, startup, and service this product.

The operating instructions must be accessible and legible. Make sure that persons responsible for the system and its operation, as well as persons who work independently on the unit, have read through the operating instructions carefully and understood them. Consult SEW-EURODRIVE if you have any questions or if you require further information.

1.2 Structure of the safety notes

1.2.1 Meaning of the signal words

The following table shows the grading and meaning of the signal words for safety notes, notes on potential risks of damage to property, and other notes.

Signal word	Meaning	Consequences if disregarded
⚠ DANGER	Imminent danger	Severe or fatal injuries
⚠ WARNING	Possible hazardous situation	Severe or fatal injuries
⚠ CAUTION	Possible hazardous situation	Minor injuries
NOTICE	Potential damage to property	Damage to the drive system or its environment
TIP	Useful information or tip: Simplifies handling of the drive system.	

1.2.2 Structure of the section safety notes

The section safety notes do not apply to a specific action, but to several actions pertaining to one subject. The used pictograms indicate either a general or a specific hazard.

This is the formal structure of a section safety note:

⚠ SIGNAL WORD

Nature and source of hazard.

Possible consequence(s) if disregarded.

- Measure(s) to prevent the hazard.

This is an example for a section safety note:

⚠ WARNING

Falling of suspended loads.

Severe or fatal injuries.

- Do not stand under the suspended load.
- Secure the danger zone.

1.2.3 Structure of the embedded safety notes

The embedded safety notes are directly integrated in the instructions just before the description of the dangerous action.

This is the formal structure of an embedded safety note:

- ⚠**SIGNAL WORD** Nature and source of hazard.

  Possible consequence(s) if disregarded.

  – Measure(s) to prevent the hazard.

This is an example for an embedded safety note:

- ⚠**DANGER** Risk of crushing if the drive restarts unintentionally.

  Severe or fatal injuries.

  – De-energize the drive.

  – Secure the drive against unintended restart.

1.3 Rights to claim under limited warranty

A requirement of fault-free operation and fulfillment of any rights to claim under limited warranty is that you adhere to the information in the operating instructions. Therefore, read the operating instructions before you start working with the unit!

1.4 Exclusion of liability

You must comply with the information contained in these operating instructions to ensure safe operation of the MOVITRANS® units and to achieve the specified product characteristics and performance requirements. SEW-EURODRIVE assumes no liability for injury to persons or damage to equipment or property resulting from non-observance of these operating instructions. In such cases, any liability for defects is excluded.

1.5 Copyright

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2 Safety Notes

2.1 Preliminary information

The following basic safety notes must be read carefully to prevent injury to persons and damage to property. The operator must ensure that the basic safety notes are read and observed.

Make sure that persons responsible for the plant and its operation, as well as persons who work independently on the units, have read through the documentation carefully and understood it. Consult SEW-EURODRIVE if you have any questions or if you require further information.

The following safety notes are primarily concerned with the use of MOVITRANS® units. If you use other SEW components, also refer to the safety notes for the respective components in the corresponding documentation.

Please also observe the supplementary safety notes in the individual sections of this documentation.

2.2 General information

Removing covers without authorization, improper use as well as incorrect installation or operation may result in severe injuries to persons or damage to property.

2.3 Target group

Any mechanical work may only be performed by adequately qualified personnel. Qualified personnel in this context are persons who are familiar with the setup, mechanical installation, troubleshooting and maintenance for the units. Further, they are qualified as follows:

- Training in mechanical engineering, e.g. as a mechanic or mechatronics technician (final examinations must have been passed).
- Knowledge of this documentation

Any electronic work may only be performed by adequately qualified electricians. Qualified electricians in this context are persons who are familiar with the electronic installation, startup, troubleshooting and maintenance for the units. Further, they are qualified as follows:

- Training in electrical engineering, e.g. as an electrician or mechatronics technician (final examinations must have been passed).
- Knowledge of this documentation

All work in further areas of transportation, storage, operation and waste disposal may be carried out only by persons who are trained appropriately.

2.4 Designated use

Note the designated use of the following MOVITRANS® units:

- **MOVITRANS® units in general**

  MOVITRANS® units are intended for use in industrial and commercial installations for the operation of contactless power transmission systems.

- **THM pick-ups**

  In the energy transfer system MOVITRANS®, the THM10C and THM10E pick-ups on the mobile component tap the power without contact from the stationary line cable through magnetic coupling. The THM pick-ups may only be operated with the following designated and suitable units:

  – MOVITRANS® TPM mobile converter

  – MOVIPRO® drive controller

- **TPM mobile converter**

  In the energy transfer system MOVITRANS®, the TPM units convert the energy picked up by the THM pick-ups and transfer it to the electrical consumer. You may only connect suitable and designated consumers to the TPM mobile converters, such as SEW frequency inverters.

Observe all information on the technical data and the permitted conditions where the units are operated.

Do not start up the unit (operate in the designated fashion) until you have established that the machine complies with the EMC Directive 2004/108/EC and that the end product categorically conforms to Machinery Directive 98/37/EC (with reference to EN 60204).

The rules and regulations of the German employers' liability insurance association ["Berufsgenossenschaft" - BG], in particular BG rules B11 concerning electromagnetic fields, must be observed during installation, startup and operation of systems with contactless energy transfer by induction for use in industrial workplaces.

2.5 Transport

Observe the following instructions when you receive a shipment:

- Inspect the shipment immediately upon receipt for any damage that may have occurred during transportation.
- Inform the shipping company immediately about any damage.
- Do not startup any units if they were damaged in transit.

Observe the following notes for the transportation of MOVITRANS® units:

- Make sure that the units are not subject to mechanical impact during transport.
- Use suitable, sufficiently rated handling equipment.
- Observe the notes on the climatic conditions in the "Technical Data" section.
- Remove securing devices used for transportation prior to startup.

2.6 Storage

Observe the following instructions when shutting down or storing MOVITRANS® units:

- Make sure that the units are not subject to mechanical impact during storage.
- If you store the TPM mobile converter for a long time, connect it to a designated THM pick-up every 2 years and enable the TPM mobile converter for at least 5 minutes. Check the LED "500 V o.k." to see whether the correct output voltage is present.
- Observe the notes on storage temperature in the "Technical Data" chapter.

2.7 Assembly

Observe the following notes for installing the MOVITRANS® units:

- Protect the MOVITRANS® units from excessive strain.
- Ensure that components are not deformed and/or insulation spaces are maintained, particularly during transportation and handling.
- Electric components must not be mechanically damaged or destroyed.

The following applications are prohibited unless the unit is explicitly designed for such use:

- Use in potentially explosive atmospheres.
- Use in areas exposed to harmful oils, acids, gases, vapors, dust, radiation, etc.
- Use in applications that are subject to mechanical vibration and shock loads in excess of the requirements in EN 50178.

2.8 Functional safety technology

MOVITRANS® units may not execute any safety functions without master safety systems.

2.9 Electrical connection

Observe the following notes for the electrical connection of MOVITRANS® units:

- Do not connect or disconnect plug connectors while they are energized.
- Observe applicable national accident prevention guidelines when working on live parts of MOVITRANS® units.
- Perform electrical installation according to the pertinent regulations (e.g. cable cross sections, fusing, protective conductor connection). For any additional information, refer to the applicable documentation.
- Preventive measures and protection devices must correspond to the regulations in force (e.g. EN 60204-1 or EN 50178).

  Required preventive measures:
  - Protective separation according to VDE 0100
  - Equipotential bonding
  - ESD protection

- Take suitable steps to ensure that the preventive measures and protection devices described in the operating instructions for the individual MOVITRANS® units have been implemented correctly.

2.10 Safe disconnection

The TPM mobile converter meets all requirements for safe disconnection of power and electronics connections in accordance with EN 50178. All connected circuits must also maintain the requirements for safe disconnection.

2.11 Startup/operation

Observe the following notes for starting up and operating the MOVITRANS® units:

- Only qualified electricians with the relevant accident prevention training are allowed to perform installation, startup and service work on the unit. They must also comply with the regulations in force (e.g. EN 60204, VBG 4, DIN-VDE 0100/0113/0160).
- Never install damaged units and put them into operation.
- Do not deactivate monitoring and protection equipment during the test run.
- Take appropriate measures (for example, connect binary input "ENABLE" to 0V24 on the TPM mobile converter) to ensure that the system does not start up unintentionally when power is switched on.
- During operation, the MOVITRANS® units can have live, bare and movable or rotating parts as well as hot surfaces, depending on their enclosure.
- When the unit is switched on, dangerous voltages are present at the output terminals and at any connected cables, terminals and MOVITRANS® units. Dangerous voltages can also be present when the TPS stationary converter and/or the TPM mobile converter are inhibited and the system is at a standstill.
- The fact that the status LED and other display elements on the TPM mobile converter are no longer illuminated does not indicate that the unit has been disconnected from the power supply and no longer carries any voltage.
- Safety functions within the unit may cause system standstill. Removing the cause of the problem or performing a reset can result in an automatic restart of the plant. If safety reasons prohibit this action, disconnect the TPS10A stationary converter from the power supply before correcting the fault.
- Dangerous voltages can still be present at the unit inputs and outputs for up to 10 minutes after disconnecting the power supply.
- Do not remove the housing covers.

2.12 Inspection/maintenance

Repairs may only be carried out by SEW-EURODRIVE.

2.13 Disposal

Please observe the applicable national regulations. Dispose of materials separately in accordance with the regulations in force, for example:

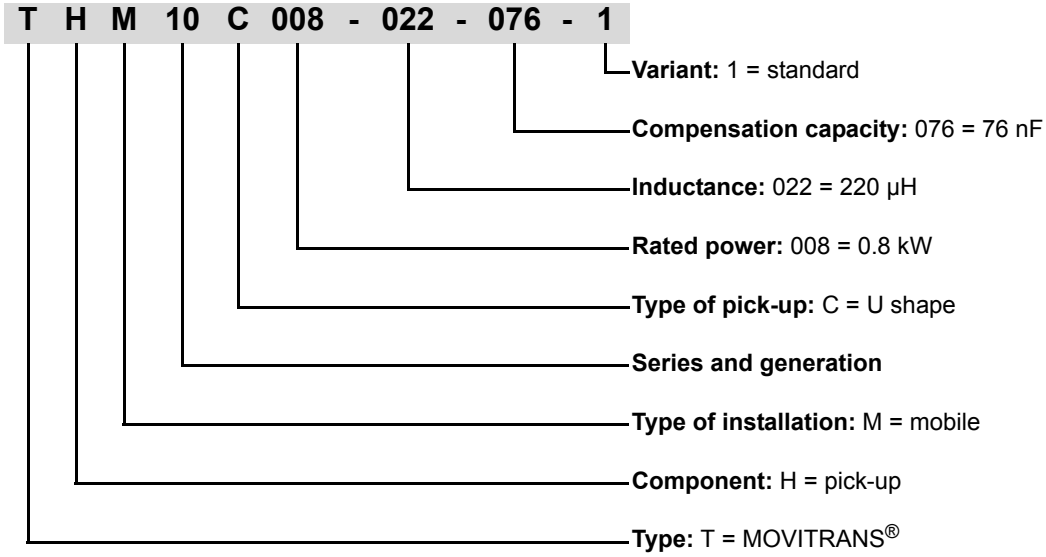
- Electronics scrap
- Plastic
- Sheet metal
- Copper
- Aluminum

3 Unit Design

3.1 THM10C unit design

3.1.1 Unit designation

The unit designation of the MOVITRANS® THM10C pick-up comprises the following characteristic unit data:


T H M 10 C 008 - 022 - 076 - 1
Variant: 1 = standard
Compensation capacity: 076 = 76 nF
Inductance: 022 = 220 µH
Rated power: 008 = 0.8 kW
Type of pick-up: C = U shape
Series and generation
Type of installation: M = mobile
Component: H = pick-up
Type: T = MOVITRANS®

3.1.2 Short designation

The following short designation is used in this documentation:

Unit	Short designation
MOVITRANS® THM10C008-022-076-1 pick-up	THM10C pick-up

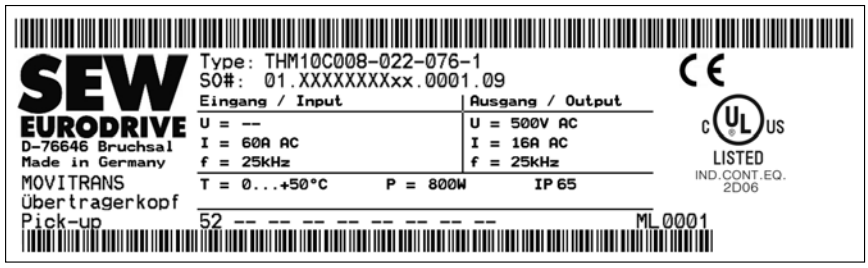
3.1.3 Scope of delivery

The following components are included in the scope of delivery:

Unit
1 THM10C pick-up With permanently installed connection cable including Han® Q 4/2 connector with angled cable outlet (maximum length 6 m, please specify when ordering)
MOVITRANS® THM10C008-022-076-1 pick-up

3.1.4 Nameplate

The THM10C pick-up has a nameplate that provides important information. The following figure shows an example of a nameplate:

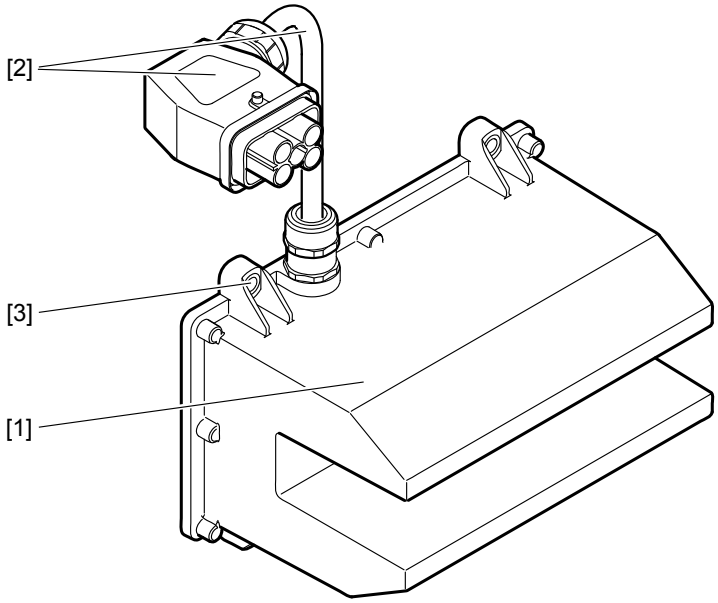


1530909195

Type	Unit designation	f	Frequency
U	Voltage	P	Output power
I	Current	T	Ambient temperature

3.1.5 Basic unit

The following figure shows the unit design of the THM10C pick-up:



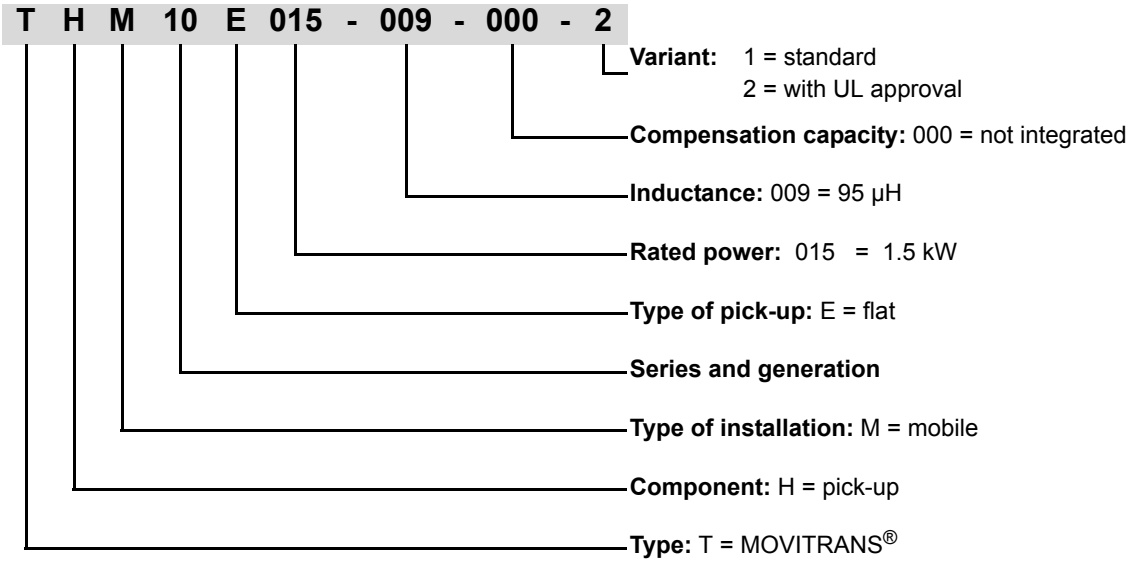
1530912139

[1] U-shaped THM10C pick-up
[2] Permanently installed connection cable including Han® Q 4/2 connector with angled cable outlet; Maximum length 6 m
[3] 4 threaded holes M6 for fastening of THM10C pick-up

3.2 THM10E unit design

3.2.1 Unit designation

The unit designation of the MOVITRANS® THM10E pick-up comprises the following characteristic unit data:


T H M 10 E 015 - 009 - 000 - 2
Variant: 1 = standard
2 = with UL approval
Compensation capacity: 000 = not integrated
Inductance: 009 = 95 µH
Rated power: 015 = 1.5 kW
Type of pick-up: E = flat
Series and generation
Type of installation: M = mobile
Component: H = pick-up
Type: T = MOVITRANS®

3.2.2 Short designation

The following short designation is used in this documentation:

Unit	Short designation
MOVITRANS® THM10E015-009-000-. pick-up	THM10E pick-up
MOVITRANS® THM10E015-009-000-1 pick-up	THM10E pick-up, Standard variant
MOVITRANS® THM10E015-009-000-2 pick-up	THM10E pick-up, UL variant

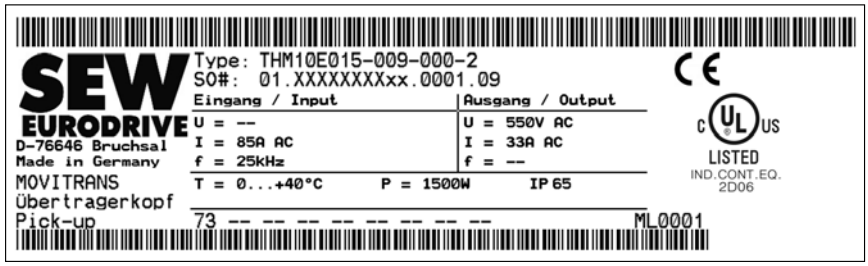
3.2.3 Scope of delivery

The following components are included in the scope of delivery:

Unit
1 THM10E pick-up With permanently installed connection cable including Han® Q 4/2 connector with angled cable outlet (maximum length 6 m, please specify when ordering)
MOVITRANS® THM10E015-009-000-1 pick-up, standard variant
MOVITRANS® THM10E015-009-000-2 pick-up, UL variant

3.2.4 Nameplate

The THM10E pick-up has a nameplate that provides important information. The following figure shows an example of a nameplate:

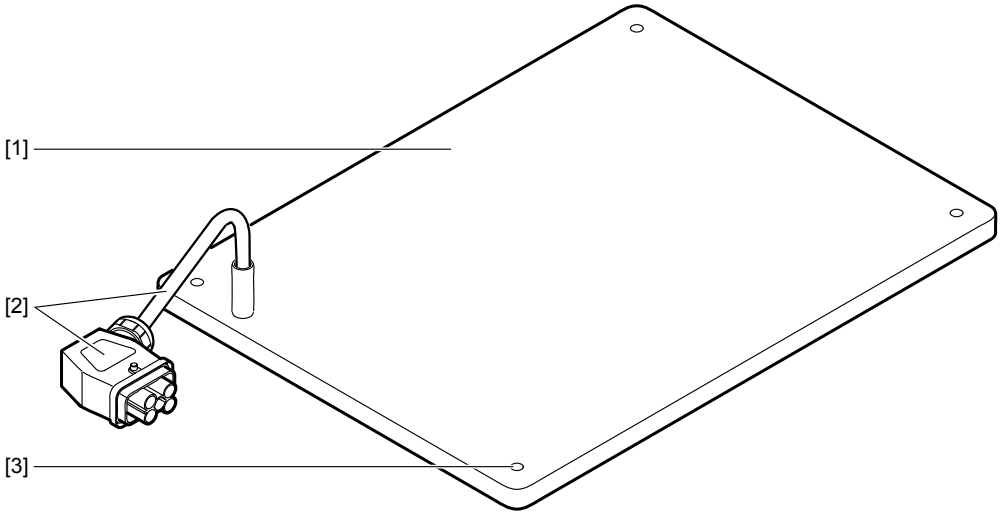


1530997131

Type	Unit designation	f	Frequency
U	Voltage	P	Output power
I	Current	T	Ambient temperature

3.2.5 Basic unit

The following figure shows the unit design of the THM10E pick-up:



1530999819

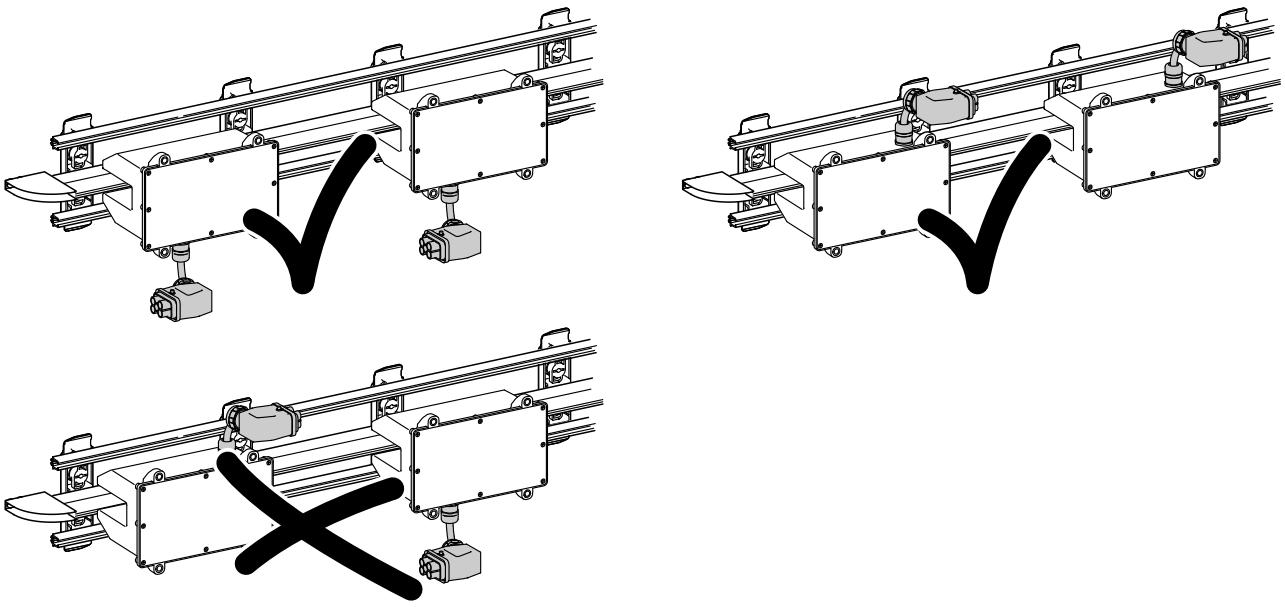
[1] THM10E flat pick-up
[2] Permanently installed connection cable including Han® Q 4/2 connector with angled cable outlet; Maximum length 6 m
[3] 4 M8 threaded holes to attach the THM10E pick-up.

4 Mechanical Installation

4.1 Mechanical installation of THM10C

4.1.1 Mounting position

Make sure that the cable outputs of the THM10C pick-ups connected to X21/X22 or X31/X32 of the TPM mobile converter are always aligned in the same way with the TLS line cable. When choosing the mounting position, ensure that the cable outputs of the THM10C pick-ups do not point in opposite directions (up and down). They must all either be at the top or at the bottom. The following illustration shows correct and incorrect mounting positions:

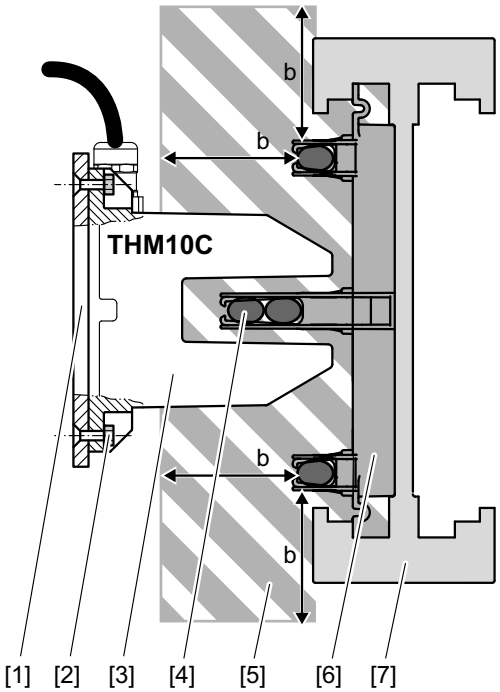


1362544267

4.1.2 Mounting

Observe the following installation instructions when mounting the THM10C pick-up:

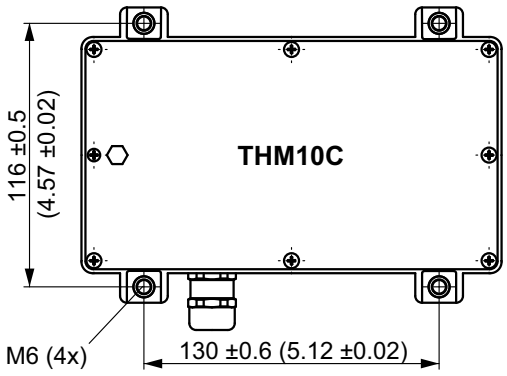
- Install the THM10C pick-up centered and parallel to the installed TLS line cable.
- Avoid lateral and angular misalignment when mounting the THM10C pick-up.
- Mount the THM10C pick-up free from stress. The THM10C pick-up must not be subjected to bending forces.
- **TIP** The tightening torque for the M6 retaining screws is 3.5 Nm (31 in-lb).
- SEW-EURODRIVE recommends to use holding plates made of aluminum. Only attach the holding plates on the back of the THM10C pick-up. The holding plates may not be attached on the sides.
- Make sure that there is no ferromagnetic or electrically conductive material within a radius of 5 cm (2 in) around the TLS line cable.



1733858187

b Distance between TLS line cable and ferromagnetic or electrically conductive material = 5 cm (2 in)
[1] Holding plate
[2] M6 retaining screw
[3] THM10C pick-up
[4] TLS line cable
[5] Space free from ferromagnetic or electrically conductive material
[6] TIS profile section system
[7] Aluminum profile rail

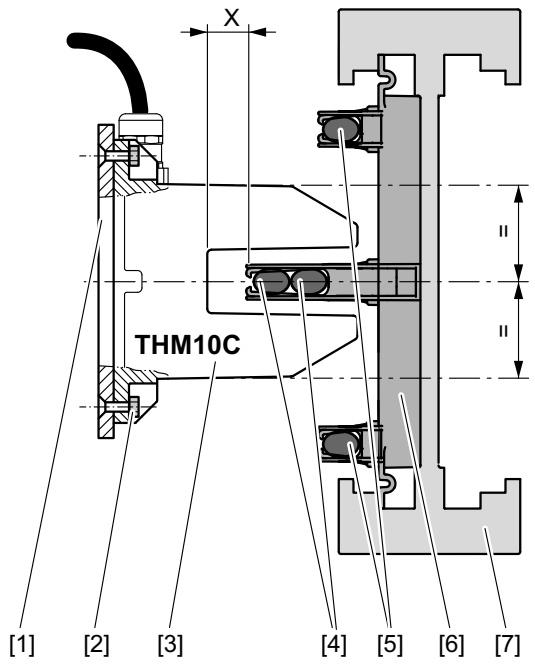
- The space between the THM10C pick-up and the TLS line cable must always be free of metallic materials.
- Observe the following bore dimensions in mm (in):



1363582091

- Best coupling is achieved when the distance x between the TLS line cable and the THM10C pick-up is 19 mm (0.75 in). If you change the distance x, the output power decreases.
- **TIP** For detailed information about the output power in relation to the distance x, refer to chapter "Technical data of THM10C".

The following figure shows a THM10C pick-up installed in an aluminum structure:



1735363211

x Distance between TLS line cable and THM10C pick-up
= 19 mm (0.75 in)

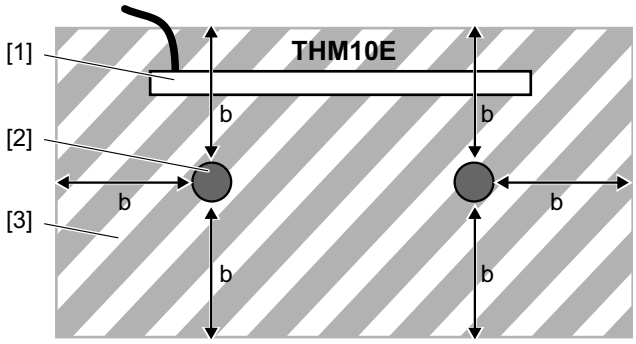
[1] Holding plate
[2] M6 retaining screw
[3] THM10C pick-up
[4] TLS10E008-01-1 line cable (supply conductor)
[5] TLS10E008-01-1 line cable (return conductor)
[6] TIS profile section system
[7] Aluminum profile rail
(not included in scope of delivery)

4.2 Mechanical installation of THM10E

4.2.1 Mounting

Observe the following installation instructions when mounting the THM10E pick-up:

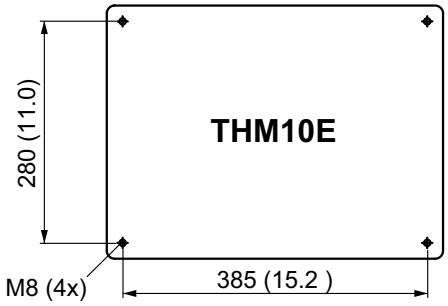
- Install the THM10E pick-up centered and parallel to the installed TLS line cable.
- Only mount the holding rails above the THM10E pick-up. The holding rails may not be attached on the sides.
- Make sure that there is no ferromagnetic or electrically conductive material within a radius of 8 to 10 cm (3 to 3.9 cm) around the TLS line cable.



1735368459

b	Distance between TLS line cable and ferromagnetic or electrically conductive material = 8 to 10 cm (3 to 3.9 in)	[1]	THM10E pick-up
		[2]	TLS line cable
		[3]	Space free from ferromagnetic and electrically conductive material

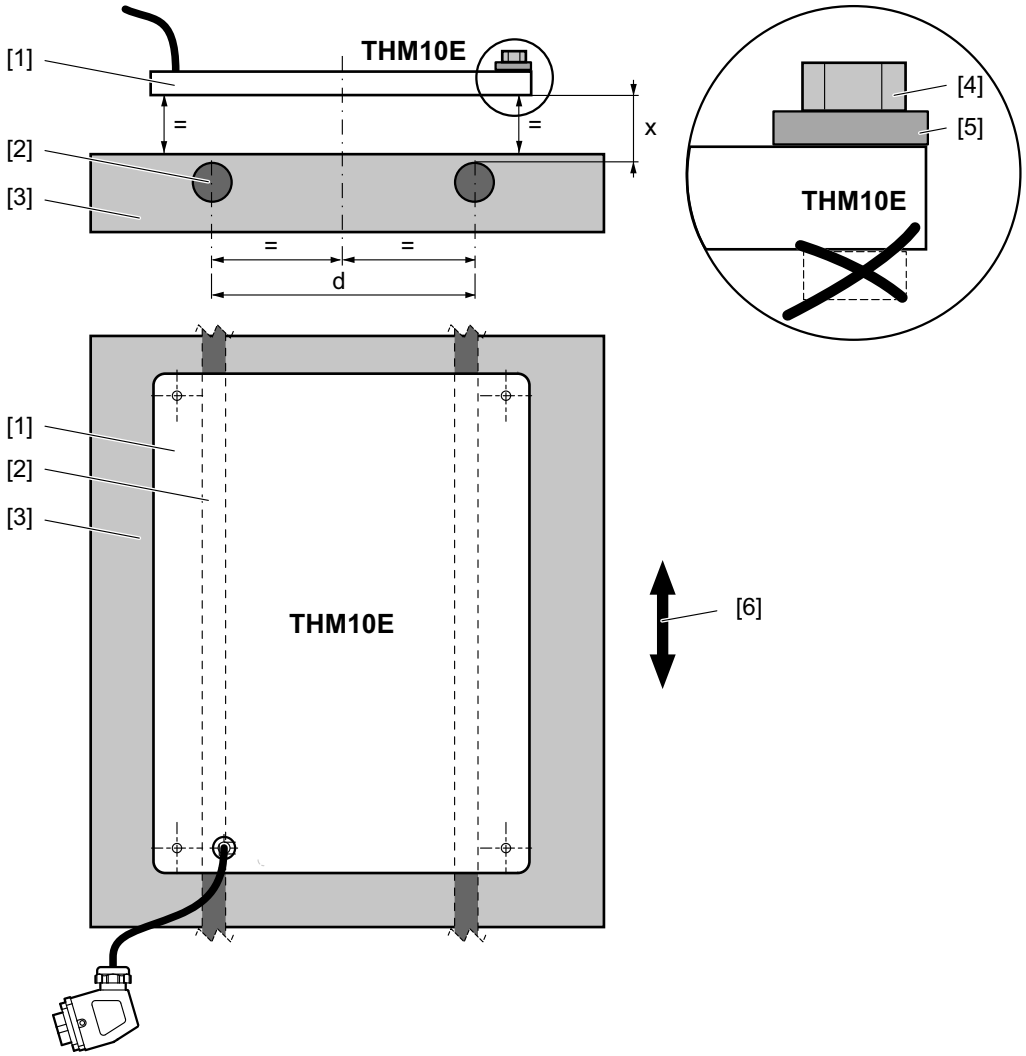
- The space between the tHM10E pick-up and the TLS line cables must always be free of metallic materials.
- Observe the following bore dimensions in mm (in):



1689716491

- **TIP** The tightening torque for the M8 retaining screws is 7 Nm (60 in-lb).
- The M8 retaining screws must not protrude from the threaded holes.
- It is essential that you avoid lateral and angular misalignment of the THM10E, as this greatly decreases the transmittable power.
- The distance x between the TLS line cable and the THM10E influences the transmittable power and may not exceed 20 mm (0.79 in).
- **TIP** For detailed information on the output power, refer to chapter "Technical data of THM10E".

The following figure shows an installed THM10E pick-up:



1734137867

x Distance between TLS line cable and THM10E pick-up
= max. 20 mm (max. 0.79 in)

d Distance between the TLS line cables
= 140 mm (5.51 in)

[1] THM10E pick-up
[2] TLS line cable
[3] E.g. concrete floor
[4] M8 retaining screw
[5] Holding rail
[6] Direction of movement

5 Electrical Installation

5.1 Electrical installation of THM10C

⚠ WARNING

Faulty installation.

Severe or fatal injuries.

- It is essential to comply with the safety notes in chapter 2 during installation.

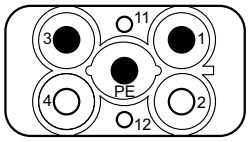
5.1.1 Wiring diagram

The following table provides information about this connection:

Function
Connection of the MOVITRANS® THM10C pick-up

Connection type
Han® Q4/2, male

Wiring diagram



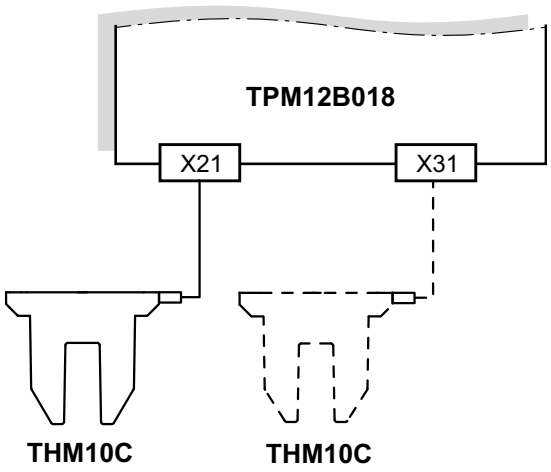
1734414219

Assignment			
No.		**Core color/ assignment**	**Function**
–	1	bk/1	Pole 1
	2	N.C.	Not connected
	3	bk/3	Pole 2
	4	N.C.	Not connected
	11	N.C.	Not connected
	12	N.C.	Not connected
	PE	gnye/PE	Equipotential bonding/protective earth conductor

- **TIP** For information on the connection cables, refer to chapter "Technical Data" in this document.

5.1.2 TPM12B018 mobile converter

You can connect 1 or 2 U-shaped THM10C pick-ups, each with 0.8 kW rating, to TPM12B018 mobile converters.

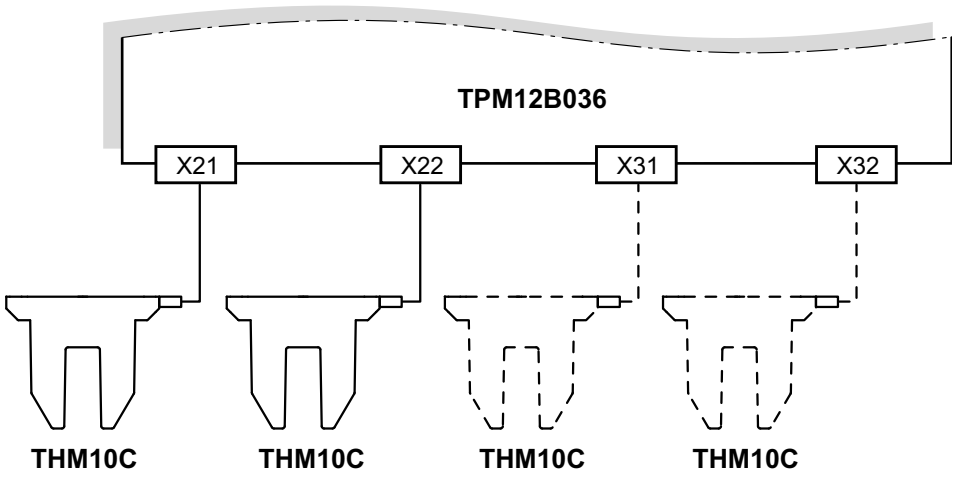


1362501003

- **TIP** For detailed information, refer to the "MOVITRANS® TPM12B Mobile Converter" operating instructions.

5.1.3 TPM12B036 mobile converter

You can connect 2 or 4 U-shaped THM10C pick-ups, each with 0.8 kW rating, to TPM12B036 mobile converters. If you connect only 2 THM10C pick-ups to the TPM12B036 mobile converter, you have to use the terminals X21/X22 or X31/X32.



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- **TIP** For detailed information, refer to the "MOVITRANS® TPM12B Mobile Converter" operating instructions.

5.1.4 MOVIPRO® drive controller

You can also connect the THM10C pick-up to a MOVIPRO® drive controller.

- **TIP** For detailed information, refer to the relevant MOVIPRO® operating instructions.

5.2 Electrical installation of THM10E

⚠ WARNING

Faulty installation.

Severe or fatal injuries.

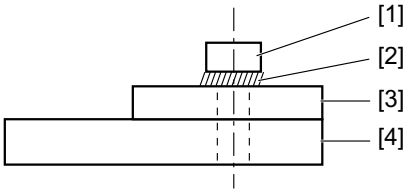
- It is essential to comply with the safety notes in chapter 2 during installation.

5.2.1 Equipotential bonding

You must establish local equipotential bonding between the individual mobile electrical units to prevent excessive contact voltage in the event of a fault.

Install equipotential bonding as follows:

- Connect the THM10E pick-up and all additional units with the reference potential of the mobile unit in line with high-frequency guidelines. Establish a wide-area, metallic contact between the unit housing and the unpainted body of the mobile unit.
- Between the THM10E pick-up and the metallic mounting plate (vehicle support frame), you must establish low-impedance equipotential bonding via a screw connection with a toothed washer on one side at a retaining screw of the THM10E pick-up.



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[1] Screw
[2] Toothed washer
[3] Mounting plate connected to the central equipotential bonding
[4] THM10E pick-up with screw thread

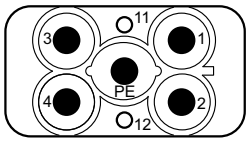
5.2.2 Wiring diagram

The following table provides information about this connection:

Function
Connection of the MOVITRANS® THM10E pick-up

Connection type
Han® Q 4/2, male

Wiring diagram



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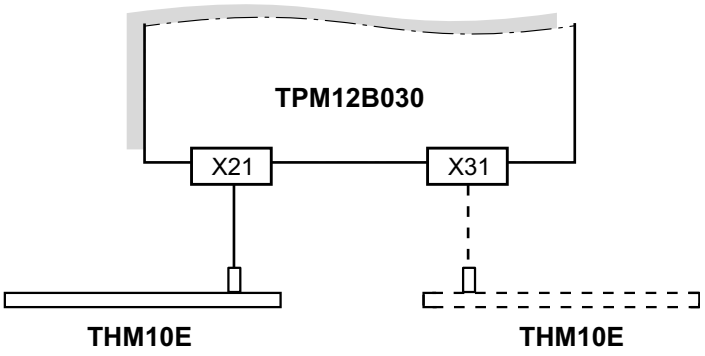
Assignment			
No.		**Core color/ assignment**	**Function**
–	1	bk/1	Pole 1
	2	bk/2	Pole 1
	3	bk/3	Pole 2
	4	bk/4	Pole 2
	11	N.C.	Not connected
	12	N.C.	Not connected
	PE	gnye/PE	Equipotential bonding/protective earth conductor

- **TIP** For information on the connection cables, refer to chapter "Technical Data" in this document.

5.2.3 TPM12B030 mobile converter

You can connect 1 or 2 flat THM10E pick-ups, each with 1.5 kW rating, to TPM12B030 mobile converters.



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- **TIP** For detailed information, refer to the "MOVITRANS® TPM12B Mobile Converter" operating instructions.

5.2.4 MOVIPRO® drive controller

You can also connect the THM10E pick-up to a MOVIPRO® drive controller.

- **TIP** For detailed information, refer to the relevant MOVIPRO® operating instructions.

6 Technical Data

6.1 Technical data of THM10C

6.1.1 Basic unit

The following table shows the general data for the THM10C pick-up:

MOVITRANS® THM10C008-022-076-1		
Ambient temperature **Climate class**	**T**	0 °C – +50 °C (+32 °F – +122 °F) EN 60721-3-3, class 3K3
Storage and transportation temperature	**T_L**	0 °C – +80 °C (+32 °F – +176 °F)
Degree of protection		IP65
Pollution class		2 according to IEC 60664-1 (VDE 0110-1)
Relative humidity		≤ 95%, condensation not permitted

The following table shows the unit data for the THM10C pick-up. It applies to line cables which are realized with round cables routed in a profile section:

Line cable as round cable		
Rated current	**I_N**	AC 60 A
Frequency of line cable current	**f_I**	25 kHz
Nominal distance between THM10C and line cable	**x**[1)]	19 mm
Inductance		220 µH
Capacity		76 nF
Maximum output voltage	**V_O**	AC 550 V
Maximum current in supply cable		AC 16 A
Rated output power	**P_N**	800 W[2)]
Maximum power loss	**P_V**	25 W
Weight (without connection cable)		2.9 kg (6.4 lb)

1) Compare section "Mounting" in chapter "Mechanical installation of THM10C"

2) Compare section "Transmittable power" in this chapter

6.1.2 Connection cables

SEW-EURODRIVE offers the following pre-fabricated cables with connector:

Connection cable	
Cable type	3-core cable, type Ölflex-FD® 891 3G2,5
Cable length	max. 6 m (max. 19.7 ft) (depending on order)
Smallest bending radius	≥ 40 mm
Cable cross section	3 x 2.5 mm^2
Connector type	Han® Q 4/2, male

- **TIP** For additional cable information, refer to the catalogs of the cable manufacturer "LAPP KABEL".

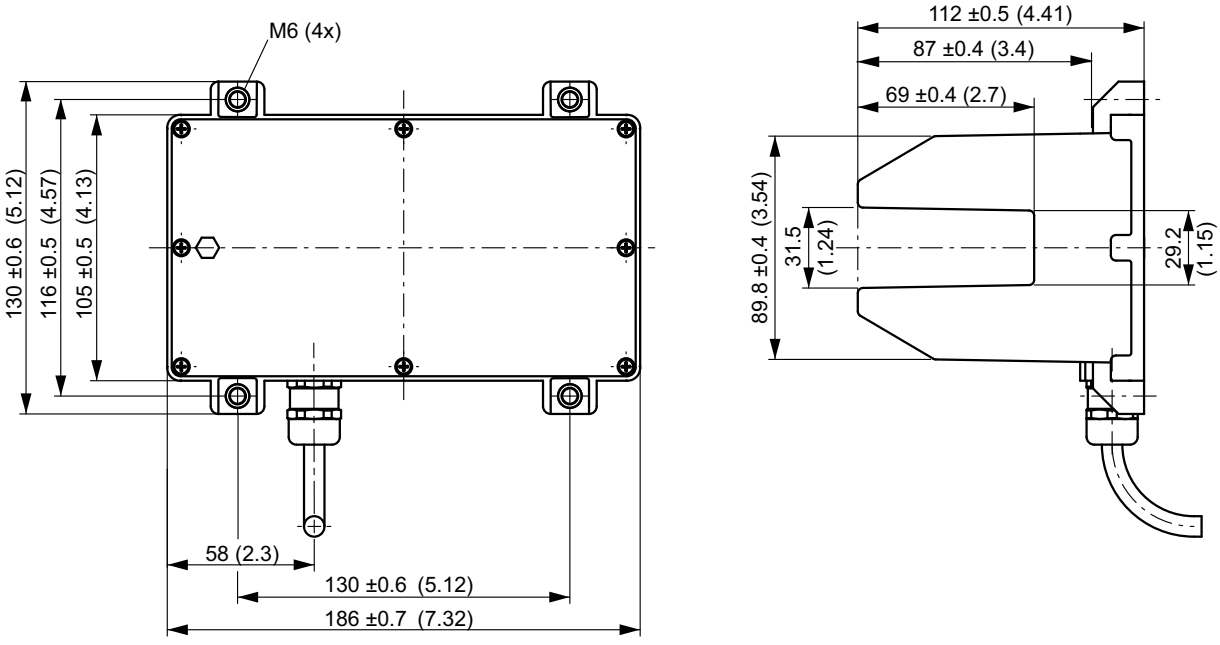
6.1.3 Transmittable power

For the THM10C, a difference is made between peak power P_1 (20 s with a cycle duration of 5 min) and continuous power P_2 (P_1 / P_2 ≈ 1.1).

Line cable geometry/distance x between Line cable and THM10C pick-up	Transmittable power Line cable current = 60 A	
[mm]	Peak power [W]	Continuous power [W]
Straight / 15	900	800
Straight / 19	900	800
Straight / 24	900	800
Straight / 29	800	700
Straight / 39	700	500
Inner curve with r = 750 mm / 19	900	800
Outer curve with r = 750 mm / 19	900	800
Vertical curve with α = 7° / 19	900	800

6.1.4 Dimension drawing

The following figure shows the dimensions of the THM10C pick-up in mm (in):



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6.2 Technical data of THM10E

6.2.1 Basic unit

The following table shows the general data for the THM10E pick-up:

MOVITRANS® THM10E015-009-000-1		
Ambient temperature **Climate class**	**T**	0 °C – +40 °C (+32 °F – +104 °F) EN 60721-3-3, Klasse 3K3
Storage and transportation temperature	**T_L**	0 °C – +80 °C (+32 °F – +176 °F)
Degree of protection		IP65
Pollution class		2 according to IEC 60664-1 (VDE 0110-1)
Relative humidity		≤ 95%, condensation not permitted

The following table shows the unit data for the THM10E pick-up. It applies to line cables which are realized with round cables routed in the floor:

Line cable as round cable		
Rated current	**I_N**	AC 85 A
Frequency of line cable current	**f_I**	25 kHz
Distance between supply and return cable	**d**	140 mm
Maximum distance between THM10E and line cable	**x**[1)]	20 mm
Inductance		95 µH
Maximum output voltage	**V_O**	AC 550 V
Maximum current in supply cable		AC 33 A
Rated output power 85 A line conductor current	**P_N**	1500 W[2)]
Rated output power 60 A line conductor current	**P_N**	950 W[2)]
Maximum power loss	**P_V**	60 W
Thermal contact resistance of aluminum carrier plate		About 1 K/W horizontal position
Weight (without connection cable)		7.2 kg (16 lb)

1) Compare section "Mounting" in chapter "Mechanical installation of THM10E"

2) Compare section "Transmittable power" in this chapter

6.2.2 Connection cables

SEW-EURODRIVE offers the following pre-fabricated cables with connector:

Connection cable	
Cable type without UL approval	Type Ölflex-Classic 190
Cable type with UL approval	5-core cable, Ölflex-FD® 891 5G2,5
Cable length	max. 6 m (max. 20 ft) (depending on order)
Smallest bending radius	≥ 60 mm
Cable cross section	5 x 2.5 mm^2
Connector type	Han® Q 4/2, male

- **TIP** For additional cable information, refer to the catalogs of the cable manufacturer "LAPP KABEL".

6.2.3 Transmittable power

The transmittable power depends on the following geometrical components:

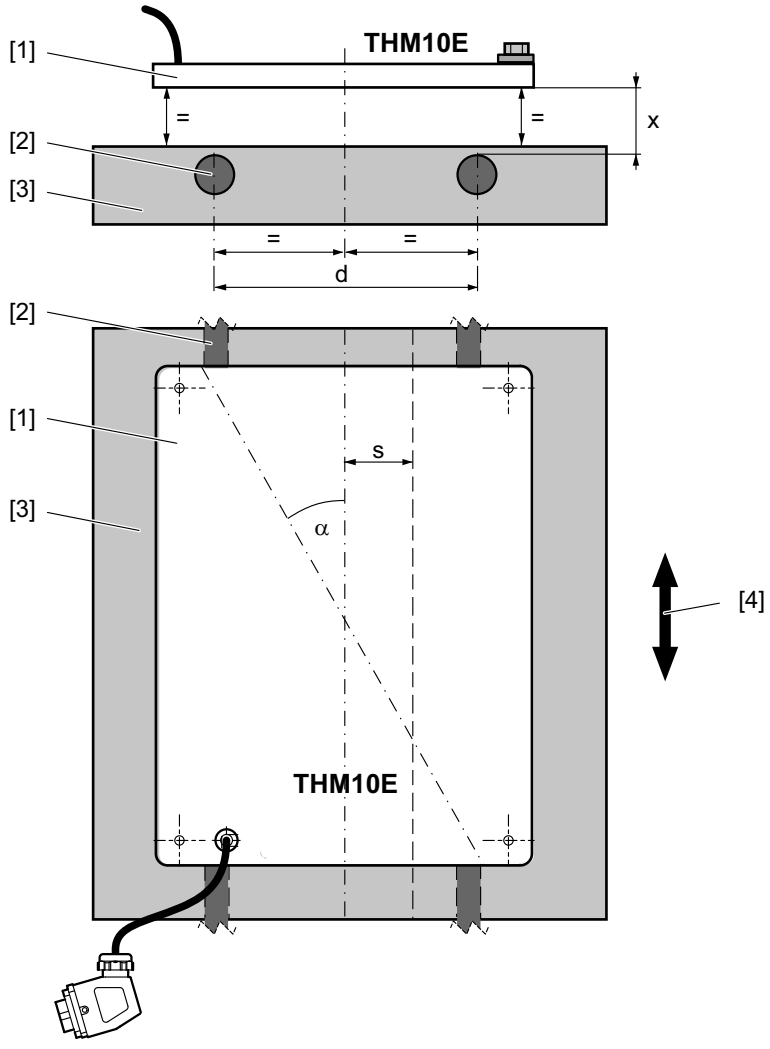
- Distance x between line cable and THM10E pick-up
- Lateral offset s
- Angular offset α

The mechanical air gap is smaller than the distance x by the depth of the cover of the line cable (3 – 5 mm) and possible surface irregularities.

The lateral offset s is the offset of the THM10E pick-up from its center parallel to the centerline of the 2 line cables.

The angular offset α is the angle between the centerline of the THM10E pick-up and the centerline of the 2 line cables. The center of rotation is at the point of intersection of the 2 diagonals of the THM10E pick-up.

The following figure shows the described geometrical components.



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x	Distance x	[1]	THM10E pick-up
s	Lateral offset s	[2]	TLS line cable
α	Angular offset α	[3]	E.g. concrete floor
		[4]	Direction of movement

The following table shows the transmittable power subject to distance x, lateral offset s and angular offset α. The effective power P was measured with the TPM12B030 mobile converter for a few selected parameters with the following line cable currents to give you some examples:

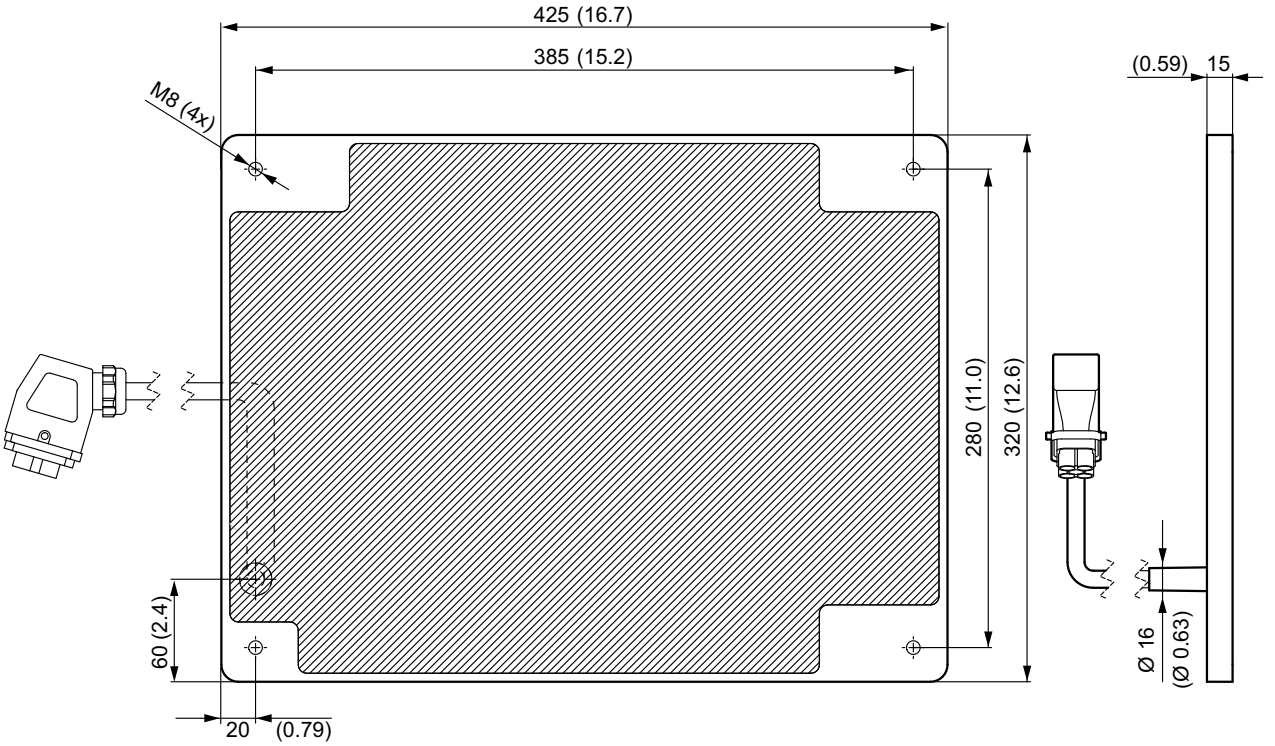
- I = 85 A
- I = 60 A

Distance x	Lateral offset s	Angular offset	Transmittable power P	
			at I = 85 A	at I = 60 A
[mm]	[mm]	[°]	[W]	[W]
10	0	0	1500	950
10	10	0	1500	950
10	20	0	1500	900
10	30	0	1250	640
10	40	0	940	400
10	50	0	600	150
15	0	0	1500	850
15	10	0	1500	850
15	20	0	1300	720
15	30	0	1100	590
15	40	0	850	210
15	50	0	550	100
20	0	0	1500	770
20	10	0	1500	770
20	20	0	1200	620
20	30	0	985	450
20	40	0	800	140
20	50	0	500	40
10	0	10	1300	950
10	0	20	1250	730
10	0	30	900	250
10	0	40	465	25
15	0	10	1400	670
15	0	20	1200	570
15	0	30	800	150
15	0	40	450	0
20	0	10	1250	550
20	0	20	1050	440
20	0	30	700	56
20	0	40	370	0

- **TIP** Further measured values are available on request.

6.2.4 Dimension drawing

The following figure shows the dimensions of the THM10E pick-up in mm (in):



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7 Address List

Germany			
Headquarters **Production** **Sales**	**Bruchsal**	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 D-76646 Bruchsal P.O. Box Postfach 3023 • D-76642 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de sew@sew-eurodrive.de
Service Competence Center	**Central**	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 1 D-76676 Graben-Neudorf	Tel. +49 7251 75-1710 Fax +49 7251 75-1711 sc-mitte@sew-eurodrive.de
	North	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 40-42 D-30823 Garbsen (near Hannover)	Tel. +49 5137 8798-30 Fax +49 5137 8798-55 sc-nord@sew-eurodrive.de
	East	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 D-08393 Meerane (near Zwickau)	Tel. +49 3764 7606-0 Fax +49 3764 7606-30 sc-ost@sew-eurodrive.de
	South	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 D-85551 Kirchheim (near München)	Tel. +49 89 909552-10 Fax +49 89 909552-50 sc-sued@sew-eurodrive.de
	West	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 D-40764 Langenfeld (near Düsseldorf)	Tel. +49 2173 8507-30 Fax +49 2173 8507-55 sc-west@sew-eurodrive.de
	Electronics	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 D-76646 Bruchsal	Tel. +49 7251 75-1780 Fax +49 7251 75-1769 sc-elektronik@sew-eurodrive.de
	Drive Service Hotline / 24 Hour Service		+49 180 5 SEWHELP +49 180 5 7394357
	Additional addresses for service in Germany provided on request!		

France			
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Production	**Forbach**	SEW-EUROCOME Zone Industrielle Technopôle Forbach Sud B. P. 30269 F-57604 Forbach Cedex	Tel. +33 3 87 29 38 00
Assembly **Sales** **Service**	**Bordeaux**	SEW-USOCOME Parc d'activités de Magellan 62, avenue de Magellan - B. P. 182 F-33607 Pessac Cedex	Tel. +33 5 57 26 39 00 Fax +33 5 57 26 39 09
	Lyon	SEW-USOCOME Parc d'Affaires Roosevelt Rue Jacques Tati F-69120 Vaulx en Velin	Tel. +33 4 72 15 37 00 Fax +33 4 72 15 37 15
	Paris	SEW-USOCOME Zone industrielle 2, rue Denis Papin F-77390 Verneuil l'Etang	Tel. +33 1 64 42 40 80 Fax +33 1 64 42 40 88
	Additional addresses for service in France provided on request!		

Algeria			
Sales	**Alger**	Réducom 16, rue des Frères Zaghnoun Bellevue El-Harrach 16200 Alger	Tel. +213 21 8222-84 Fax +213 21 8222-84 reducom_sew@yahoo.fr

Argentina			
Assembly **Sales** **Service**	**Buenos Aires**	SEW EURODRIVE ARGENTINA S.A. Centro Industrial Garin, Lote 35 Ruta Panamericana Km 37,5 1619 Garin	Tel. +54 3327 4572-84 Fax +54 3327 4572-21 sewar@sew-eurodrive.com.ar http://www.sew-eurodrive.com.ar

Australia			
Assembly **Sales** **Service**	**Melbourne**	SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043	Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au
	Sydney	SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164	Tel. +61 2 9725-9900 Fax +61 2 9725-9905 enquires@sew-eurodrive.com.au

Austria			
Assembly **Sales** **Service**	**Wien**	SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Strasse 24 A-1230 Wien	Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 http://sew-eurodrive.at sew@sew-eurodrive.at

Belarus			
Sales	**Minsk**	SEW-EURODRIVE BY RybalkoStr. 26 BY-220033 Minsk	Tel.+375 (17) 298 38 50 Fax +375 (17) 29838 50 sales@sew.by

Belgium			
Assembly **Sales** **Service**	**Brüssel**	**SEW Caron-Vector** Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.sew-eurodrive.be info@caron-vector.be
Service Competence Center	**Industrial Gears**	**SEW Caron-Vector** Rue de Parc Industriel, 31 BE-6900 Marche-en-Famenne	Tel. +32 84 219-878 Fax +32 84 219-879 http://www.sew-eurodrive.be service-wallonie@sew-eurodrive.be
	Antwerp	**SEW Caron-Vector** Glasstraat, 19 BE-2170 Merksem	Tel. +32 3 64 19 333 Fax +32 3 64 19 336 http://www.sew-eurodrive.be service-antwerpen@sew-eurodrive.be

Brazil			
Production **Sales** **Service**	**Sao Paulo**	SEW-EURODRIVE Brasil Ltda. Avenida Amâncio Gaiolli, 152 - Rodovia Presidente Dutra Km 208 Guarulhos - 07251-250 - SP SAT - SEW ATENDE - 0800 7700496	Tel. +55 11 2489-9133 Fax +55 11 2480-3328 http://www.sew-eurodrive.com.br sew@sew.com.br
	Additional addresses for service in Brazil provided on request!		

Bulgaria			
Sales	**Sofia**	BEVER-DRIVE GmbH Bogdanovetz Str.1 BG-1606 Sofia	Tel. +359 2 9151160 Fax +359 2 9151166 bever@fastbg.net

Cameroon			
Sales	**Douala**	Electro-Services Rue Drouot Akwa B.P. 2024 Douala	Tel. +237 33 431137 Fax +237 33 431137

Canada			
Assembly **Sales** **Service**	**Toronto**	SEW-EURODRIVE CO. OF CANADA LTD. 210 Walker Drive Bramalea, Ontario L6T3W1	Tel. +1 905 791-1553 Fax +1 905 791-2999 http://www.sew-eurodrive.ca marketing@sew-eurodrive.ca
	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. 7188 Honeyman Street Delta. B.C. V4G 1 E2	Tel. +1 604 946-5535 Fax +1 604 946-2513 marketing@sew-eurodrive.ca
	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2555 Rue Leger LaSalle, Quebec H8N 2V9	Tel. +1 514 367-1124 Fax +1 514 367-3677 marketing@sew-eurodrive.ca
	Additional addresses for service in Canada provided on request!		

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China			
Production **Assembly** **Sales** **Service**	**Tianjin**	SEW-EURODRIVE (Tianjin) Co., Ltd. No. 46, 7th Avenue, TEDA Tianjin 300457	Tel. +86 22 25322612 Fax +86 22 25322611 info@sew-eurodrive.cn http://www.sew-eurodrive.cn
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	Guangzhou	SEW-EURODRIVE (Guangzhou) Co., Ltd. No. 9, JunDa Road East Section of GETDD Guangzhou 510530	Tel. +86 20 82267890 Fax +86 20 82267891 guangzhou@sew-eurodrive.cn
	Shenyang	SEW-EURODRIVE (Shenyang) Co., Ltd. 10A-2, 6th Road Shenyang Economic Technological Development Area Shenyang, 110141	Tel. +86 24 25382538 Fax +86 24 25382580 shenyang@sew-eurodrive.cn
	Wuhan	SEW-EURODRIVE (Wuhan) Co., Ltd. 10A-2, 6th Road No. 59, the 4th Quanli Road, WEDA 430056 Wuhan	Tel. +86 27 84478398 Fax +86 27 84478388
	Additional addresses for service in China provided on request!		

Colombia			
Assembly **Sales** **Service**	**Bogotá**	SEW-EURODRIVE COLOMBIA LTDA. Calle 22 No. 132-60 Bodega 6, Manzana B Santafé de Bogotá	Tel. +57 1 54750-50 Fax +57 1 54750-44 http://www.sew-eurodrive.com.co sewcol@sew-eurodrive.com.co

Croatia			
Sales **Service**	**Zagreb**	KOMPEKS d. o. o. PIT Erdödy 4 II HR 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@inet.hr

Czech Republic			
Sales	**Praha**	SEW-EURODRIVE CZ S.R.O. Business Centrum Praha Lužná 591 CZ-16000 Praha 6 - Vokovice	Tel. +420 255 709 601 Fax +420 220 121 237 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz

Denmark			
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Egypt			
Sales **Service**	**Cairo**	Copam Egypt for Engineering & Agencies 33 El Hegaz ST, Heliopolis, Cairo	Tel. +20 2 22566-299 + 1 23143088 Fax +20 2 22594-757 http://www.copam-egypt.com/ copam@datum.com.eg
Service	**Sharjah**	Copam Middle East (FZC) Sharjah Airport International Free Zone P.O. Box 120709 Sharjah **United Arabian Emirates**	Tel. +971 6 5578-488 Fax +971 6 5578-499 copam_me@eim.ae

Estonia			
Sales	**Tallin**	ALAS-KUUL AS Reti tee 4 EE-75301 Peetri küla, Rae vald, Harjumaa	Tel. +372 6593230 Fax +372 6593231 veiko.soots@alas-kuul.ee

Finland			
Assembly **Sales** **Service**	**Lahti**	SEW-EURODRIVE OY Vesimäentie 4 FIN-15860 Hollola 2	Tel. +358 201 589-300 Fax +358 3 780-6211 sew@sew.fi http://www.sew-eurodrive.fi
Production **Assembly** **Service**	**Karkkila**	SEW Industrial Gears Oy Valurinkatu 6, PL 8 FI-03600 Karkkila, 03601 Karkkila	Tel. +358 201 589-300 Fax +358 201 589-310 sew@sew.fi http://www.sew-eurodrive.fi

Gabon			
Sales	**Libreville**	ESG Electro Services Gabun Feu Rouge Lalala 1889 Libreville Gabun	Tel. +241 741059 Fax +241 741059

Great Britain			
Assembly **Sales** **Service**	**Normanton**	SEW-EURODRIVE Ltd. Beckbridge Industrial Estate P.O. Box No.1 GB-Normanton, West- Yorkshire WF6 1QR	Tel. +44 1924 893-855 Fax +44 1924 893-702 http://www.sew-eurodrive.co.uk info@sew-eurodrive.co.uk

Greece			
Sales **Service**	**Athen**	Christ. Boznos & Son S.A. 12, Mavromichali Street P.O. Box 80136, GR-18545 Piraeus	Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 http://www.boznos.gr info@boznos.gr

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India			
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Assembly **Sales** **Service**	**Chennai**	SEW-EURODRIVE India Private Limited Plot No. K3/1, Sipcot Industrial Park Phase II Mambakkam Village Sriperumbudur - 602105 Kancheepuram Dist, Tamil Nadu	Tel. +91 44 37188888 Fax +91 44 37188811 c.v.shivkumar@seweurodriveindia.com

Ireland			
Sales **Service**	**Dublin**	Alperton Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458 info@alperton.ie http://www.alperton.ie

Israel			
Sales	**Tel-Aviv**	Liraz Handasa Ltd. Ahofer Str 34B / 228 58858 Holon	Tel. +972 3 5599511 Fax +972 3 5599512 http://www.liraz-handasa.co.il office@liraz-handasa.co.il

Italy			
Assembly **Sales** **Service**	**Milano**	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 02 96 9801 Fax +39 02 96 799781 http://www.sew-eurodrive.it sewit@sew-eurodrive.it

Ivory Coast			
Sales	**Abidjan**	SICA Ste industrielle et commerciale pour l'Afrique 165, Bld de Marseille B.P. 2323, Abidjan 08	Tel. +225 2579-44 Fax +225 2584-36

Japan			
Assembly **Sales** **Service**	**Iwata**	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Iwata Shizuoka 438-0818	Tel. +81 538 373811 Fax +81 538 373814 http://www.sew-eurodrive.co.jp sewjapan@sew-eurodrive.co.jp

Korea			
Assembly **Sales** **Service**	**Ansan-City**	SEW-EURODRIVE KOREA CO., LTD. B 601-4, Banweol Industrial Estate 1048-4, Shingil-Dong Ansan 425-120	Tel. +82 31 492-8051 Fax +82 31 492-8056 http://www.sew-korea.co.kr master@sew-korea.co.kr

Korea			
	Busan	SEW-EURODRIVE KOREA Co., Ltd. No. 1720 - 11, Songjeong - dong Gangseo-ku Busan 618-270	Tel. +82 51 832-0204 Fax +82 51 832-0230 master@sew-korea.co.kr

Latvia			
Sales	**Riga**	SIA Alas-Kuul Katlakalna 11C LV-1073 Riga	Tel. +371 7139253 Fax +371 7139386 http://www.alas-kuul.com info@alas-kuul.com

Lebanon			
Sales	**Beirut**	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 4947-86 +961 1 4982-72 +961 3 2745-39 Fax +961 1 4949-71 ssacar@inco.com.lb

Lithuania			
Sales	**Alytus**	UAB Irseva Naujoji 19 LT-62175 Alytus	Tel. +370 315 79204 Fax +370 315 56175 info@irseva.lt http://www.sew-eurodrive.lt

Luxembourg			
Assembly **Sales** **Service**	**Brüssel**	CARON-VECTOR S.A. Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.sew-eurodrive.lu info@caron-vector.be

Malaysia			
Assembly **Sales** **Service**	**Johore**	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 sales@sew-eurodrive.com.my

Mexico			
Assembly **Sales** **Service**	**Quéretaro**	SEW-EURODRIVE MEXICO SA DE CV SEM-981118-M93 Tequisquiapan No. 102 Parque Industrial Quéretaro C.P. 76220 Quéretaro, México	Tel. +52 442 1030-300 Fax +52 442 1030-301 http://www.sew-eurodrive.com.mx scmexico@seweurodrive.com.mx

Morocco			
Sales	**Casablanca**	Afit 5, rue Emir Abdelkader MA 20300 Casablanca	Tel. +212 22618372 Fax +212 22618351 ali.alami@premium.net.ma

Netherlands			
Assembly **Sales** **Service**	**Rotterdam**	VECTOR Aandrijftechniek B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 http://www.vector.nu info@vector.nu

New Zealand			
Assembly **Sales** **Service**	**Auckland**	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 http://www.sew-eurodrive.co.nz sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 10 Settlers Crescent, Ferrymead Christchurch	Tel. +64 3 384-6251 Fax +64 3 384-6455 sales@sew-eurodrive.co.nz

Norway			
Assembly **Sales** **Service**	**Moss**	SEW-EURODRIVE A/S Solgaard skog 71 N-1599 Moss	Tel. +47 69 24 10 20 Fax +47 69 24 10 40 http://www.sew-eurodrive.no sew@sew-eurodrive.no

Peru			
Assembly **Sales** **Service**	**Lima**	SEW DEL PERU MOTORES REDUCTORES S.A.C. Los Calderos, 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 http://www.sew-eurodrive.com.pe sewperu@sew-eurodrive.com.pe

Poland			
Assembly **Sales** **Service**	**Lodz**	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 PL-92-518 Lódz	Tel. +48 42 676 53 00 Fax +48 42 676 53 45 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl
		24 Hour Service	Tel. +48 602 739 739 (+48 602 SEW SEW) sewis@sew-eurodrive.pl

Portugal			
Assembly **Sales** **Service**	**Coimbra**	SEW-EURODRIVE, LDA. Apartado 15 P-3050-901 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt

Romania			
Sales **Service**	**Bucuresti**	Sialco Trading SRL str. Madrid nr.4 011785 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 sialco@sialco.ro

Russia			
Assembly **Sales** **Service**	**St. Petersburg**	ZAO SEW-EURODRIVE P.O. Box 36 195220 St. Petersburg Russia	Tel. +7 812 3332522 +7 812 5357142 Fax +7 812 3332523 http://www.sew-eurodrive.ru sew@sew-eurodrive.ru

Senegal			
Sales	**Dakar**	SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar	Tel. +221 338 494 770 Fax +221 338 494 771 senemeca@sentoo.sn

Serbia			
Sales	**Beograd**	DIPAR d.o.o. Ustanicka 128a PC Košum, IV floor SCG-11000 Beograd	Tel. +381 11 347 3244 / +381 11 288 0393 Fax +381 11 347 1337 office@dipar.co.yu

Singapore			
Assembly **Sales** **Service**	**Singapore**	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 Fax +65 68612827 http://www.sew-eurodrive.com.sg sewsingapore@sew-eurodrive.com

Slovakia			
Sales	**Bratislava**	SEW-Eurodrive SK s.r.o. Rybnicná 40 SK-831 06 Bratislava	Tel. +421 2 33595 202 Fax +421 2 33595 200 sew@sew-eurodrive.sk http://www.sew-eurodrive.sk
	Žilina	SEW-Eurodrive SK s.r.o. Industry Park - PChZ ulica M.R.Štefánika 71 SK-010 01 Žilina	Tel. +421 41 700 2513 Fax +421 41 700 2514 sew@sew-eurodrive.sk
	Banská Bystrica	SEW-Eurodrive SK s.r.o. Rudlovská cesta 85 SK-974 11 Banská Bystrica	Tel. +421 48 414 6564 Fax +421 48 414 6566 sew@sew-eurodrive.sk
	Košice	SEW-Eurodrive SK s.r.o. Slovenská ulica 26 SK-040 01 Košice	Tel. +421 55 671 2245 Fax +421 55 671 2254 sew@sew-eurodrive.sk

Slovenia			
Sales **Service**	**Celje**	Pakman - Pogonska Tehnika d.o.o. UI. XIV. divizije 14 SLO - 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net

South Africa			
Assembly **Sales** **Service**	**Johannesburg**	SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 494-3104 http://www.sew.co.za info@sew.co.za
	Cape Town	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 Cape Town	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 cfoster@sew.co.za
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 2 Monaco Place Pinetown Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 700-3451 Fax +27 31 700-3847 cdejager@sew.co.za

Spain			
Assembly **Sales** **Service**	**Bilbao**	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 E-48170 Zamudio (Vizcaya)	Tel. +34 94 43184-70 Fax +34 94 43184-71 http://www.sew-eurodrive.es sew.spain@sew-eurodrive.es

Sweden			
Assembly **Sales** **Service**	**Jönköping**	SEW-EURODRIVE AB Gnejsvägen 6-8 S-55303 Jönköping Box 3100 S-55003 Jönköping	Tel. +46 36 3442 00 Fax +46 36 3442 80 http://www.sew-eurodrive.se jonkoping@sew.se

Switzerland			
Assembly **Sales** **Service**	**Basel**	Alfred Imhof A.G. Jurastrasse 10 CH-4142 Münchenstein bei Basel	Tel. +41 61 417 1717 Fax +41 61 417 1700 http://www.imhof-sew.ch info@imhof-sew.ch

Thailand			
Assembly **Sales** **Service**	**Chonburi**	SEW-EURODRIVE (Thailand) Ltd. 700/456, Moo.7, Donhuaroh Muang Chonburi 20000	Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.com

Tunisia			
Sales	**Tunis**	T. M.S. Technic Marketing Service Zone Industrielle Mghira 2 Lot No. 39 2082 Fouchana	Tel. +216 71 4340-64 + 71 4320-29 Fax +216 71 4329-76 tms@tms.com.tn

Turkey			
Assembly **Sales** **Service**	**Istanbul**	SEW-EURODRIVE Hareket Sistemleri San. ve Tic. Ltd. Sti. Bagdat Cad. Koruma Cikmazi No. 3 TR-34846 Maltepe ISTANBUL	Tel. +90 216 4419164, 3838014, 3738015 Fax +90 216 3055867 http://www.sew-eurodrive.com.tr sew@sew-eurodrive.com.tr

Ukraine			
Sales **Service**	**Dnepropetrovsk**	SEW-EURODRIVE Str. Rabochaja 23-B, Office 409 49008 Dnepropetrovsk	Tel. +380 56 370 3211 Fax +380 56 372 2078 http://www.sew-eurodrive.ua sew@sew-eurodrive.ua

USA			
Production **Assembly** **Sales** **Service** **Corporate Offices**	**Southeast Region**	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Manufacturing +1 864 439-9948 Fax Assembly +1 864 439-0566 Fax Confidential/HR +1 864 949-5557 http://www.seweurodrive.com cslyman@seweurodrive.com
Assembly **Sales** **Service**	**Northeast Region**	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 845-3179 csbridgeport@seweurodrive.com
	Midwest Region	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 440-3799 cstroy@seweurodrive.com
	Southwest Region	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
	Western Region	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, CA 94544	Tel. +1 510 487-3560 Fax +1 510 487-6433 cshayward@seweurodrive.com
	Additional addresses for service in the USA provided on request!		

Venezuela			
Assembly **Sales** **Service**	**Valencia**	SEW-EURODRIVE Venezuela S.A. Av. Norte Sur No. 3, Galpon 84-319 Zona Industrial Municipal Norte Valencia, Estado Carabobo	Tel. +58 241 832-9804 Fax +58 241 838-6275 http://www.sew-eurodrive.com.ve ventas@sew-eurodrive.com.ve sewfinanzas@cantv.net

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